

**Patent claims**

1. Anchoring means (21) to fix an intervertebral implant (15) on the end plate of a body (19, 20) of the vertebra with

5       A) an anchoring part (1) comprising a central axis (6) and two end faces (4, 5) transverse to the central axis (6),

B) at least two spikes (7) that protrude past the end faces (4, 5), are parallel to the central axis (6) and can be pressed into an end plate of a body (19, 20) of the vertebra,

10      characterised in that

B) the anchoring part (1) comprises a hollow space (3) passing through parallel to the central axis (6), and

C) the anchoring part (1) comprises fastening means (9) by means of which the anchoring part can be detachably locked on an intervertebral implant

15      (15).

2. Anchoring means (21) according to claim 1, characterised in that the fastening means (9) can be elastically deformed transversely to the central axis (6) and in the non-deformed state protrude into the hollow space (3).

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3. Anchoring means (21) according to claim 2, characterised in that the fastening means (9) are hooks (10) that can be elastically deformed transversely to the central axis (6) with lugs (11) facing the central axis (6).

25      4. Anchoring means (21) according to claim 3, characterised in that the hooks (10) are provided in the hollow space (3).

5. Anchoring means (21) according to any one of claims 1 to 4, characterised in that the fastening means (9) and the anchoring part (1) are integral.

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6. Anchoring means (21) according to any one of claims 3 to 5, characterised in that the hollow space (3) comprises depressions (8), wherein the hooks (10) are provided.

7. Anchoring means (21) according to claim 6, characterised in that perpendicularly to the central axis (6) the recesses (8) have a depth  $T$  and the maximum length of the lugs (11), measured perpendicularly to the central axis (6), is  $L$ , while  $L < T$ .

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8. Anchoring means (21) according to any one of claims 1 to 7, characterised in that the anchoring part (1) has an annular construction and the cross-sectional surface of the hollow space (3) at right angles to the central axis (6) and/or the cross-sectional surface of the anchoring part (1) bordered by the external sheathing surface at right angles to the central axis (6) are circular surfaces, elliptical surfaces, polygonal surfaces or oval surfaces.

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9. An intervertebral implant (15) with two anchoring means (21) according to any one of claims 1 to 8.

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10. An intervertebral implant (15) according to claim 9, characterised in that at each end it comprises a closing plate (13, 14) that intersects the central axis (6) and that the shape of the hollow space (3) is made to suit the closing plates (13, 14).

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11. An intervertebral implant (15) according to claim 10, characterised in that the closing plates (13, 14) are mounted without clearance in the hollow spaces (3) of the anchoring parts (1) and can be displaced relative to the central axis (6).

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12. An intervertebral implant (15) according to claim 10 or 11, characterised in that the anchoring parts (1) have a clearance for rotation about the central axis (6) with fastening means (9) fixed on the closing plates (13, 14).

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13. An intervertebral implant (15) according to any one of claims 9 to 12, characterised in that the closing plates (13, 14) comprise second fastening means, in which the fastening means (9) can be engaged on the anchoring parts (1).

14. An intervertebral implant (15) according to claim 13, characterised in that it has an external sheathing surface (16) and as second fastening means it comprises depressions (18) protruding into the sheathing surface (16) transversely to the central axis (6) for the partial accommodation of the fastening means (9).

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15. An intervertebral implant (15) according to any one of claims 9 to 13, characterised in that the closing plates (13, 14) have axially projecting segments (22) with reduced diameters.

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16. A method to fasten an implant according to any one of claims 9 to 15 within an intervertebral space, characterised by the steps:

15 a) enabling the access to the intervertebral space by means of an anterolateral, ventral lateral, transperitoneal or retroperitoneal surgical procedure,

b) tractioning both bodies (19, 20) of the vertebra adjacent to the intervertebral space,

c) scraping out the intervertebral space,

d) introducing the intervertebral implant (15) with the anchoring means (1) pushed together,

20 e) moving the anchoring parts (1) axially away from one another until the spikes (7) are adequately pressed into the base plate or the cover plate of the adjacent bodies (19, 20) of the vertebra, and

f) fixing the fastening means (9) on the intervertebral implant (15).